

IN THE SPECIFICATION

Please replace the following paragraph:

Page 9, paragraph [0023].

[0023] Thus far, circuit operation has been described during the time that switch 230 is on. Switch 230 is now turned off by the switching signal from driver 280. However, switch 235B is not immediately turned on. At this point it is noted that switches 230 and 235 include parasitic body diodes 230A and ~~230B~~ 235B, respectively. These body diodes are parasitics which are inherent in the fabrication of MOS FET switches. If bipolar transistors are used as switches 230 and 235, then discrete diodes are added to these switches since bipolar transistors do not have intrinsic parasitic body diodes. When switch 230 is turned off while current was flowing in inductor 250 in the direction indicated for current I1, the field of the inductor is built up and, due to Lenz's law, inductor current will continue to flow in the same direction. Inductor 250 becomes a current source. The energy from inductor 250 assists transistor 230 in turning off and also assists transistor 235's intrinsic body diode 235B in turning on. After switch 230 has transitioned losslessly as described above and switch 235's body diode 235B is turned on, switch 235 is now turned on by the switching signal from driver 280. Turning switch 235 on causes inductor 250 to discharge with its current eventually changing direction and flowing toward node 240 as shown by current ~~I1~~ I1'. Switch 235 then turns off under the instruction of the driver signal from drive 280. This transition again occurs losslessly due to body diode action. The driver signal from driver 280 then turns switch 230 back on and the process repeats. Zero voltage switching saves a substantial amount of energy by conserving energy that would otherwise be consumed during transistor switching.